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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,375	03/19/2004	Jason Keith Redi	03-4054	7207

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VERIZON
PATENT MANAGEMENT GROUP
1515 N. COURTHOUSE ROAD, SUITE 500
ARLINGTON, VA 22201-2909

EXAMINER

PHUNG, LUAT

ART UNIT	PAPER NUMBER
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2609

NOTIFICATION DATE	DELIVERY MODE
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08/23/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary

Application No.

10/804,375

Applicant(s)

REDI, JASON KEITH

Examiner

Luat Phung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 15 February 2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The pending claims 1-23 are presented for examination.

Claims 1-20 and 22-23 are rejected.

Claim 21 is objected to.

Claim Objections

1. Claims 1, 3, 10, 17-18 and 22 are objected to because of the following informalities.

Regarding claim 1, line 3, "a second objects" should be corrected.

Regarding claim 3, "hardware" should be changed to "hardwire".

Regarding claim 10, line 10, "at predetermined a frequency" should be changed to -- at a predetermined frequency --.

Regarding claim 17, lines 3-4, "to" in "the reestablished to communication link" should be removed.

Regarding claim 18, period is missing at the end of the claim.

Regarding claim 22, beginning of line 4, change "and" to "if the".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "the first object" in lines 2-3 and "the first node" in line 5. There is insufficient antecedent basis for these limitations in the claim.

Claim 15 recites the limitation "the first object" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Meier (US 6,046,992).

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Regarding claims 1-2, Meier discloses a multinode arrangement for establishing a communication network for transmitting information between a first object and a second object, comprising:

a plurality of nodes; (Fig. 6, blank boxes)

wherein the plurality of nodes includes at least the first node (Fig. 6, element 267) and a second node (element 263), wherein the first node and the second node are connected by and communicate through a hardwire connection (element 265 connecting elements 267 and 263); and

wherein the plurality of nodes includes at least a third node (element 271) that communicates with at least the first node or the second node through an RF communication link (element 263 communicating with element 271 per col. 5, lines 8-11), as recited in claim 1;

wherein the plurality of nodes establishes a communication network between the first object and the second object (Fig. 6, elements 264 and 286; col. 5, lines 10-11), as recited in claim 2.

Regarding claim 15, Meier discloses a multinode arrangement for establishing a communication network for transmitting information between the first object and a second object, comprising:

a communication means for communicating information from the first object (Fig. 6, element 264) to the second object (element 286) across a plurality of nodes that communicate through RF and hardwire communication links (col. 2, line 66 to col. 3, line 2).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-4 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Meier (US 6,046,992).

Regarding claims 3-4 and 19, Meier discloses all of the subject matter as disclosed in paragraph 5 of this office action except:

wherein the plurality of nodes comprises:

a plurality of node pairs; and

wherein each of the node pairs is connected by a hardwire connection, as recited in claim 3;

wherein at least one of the nodes of at least one of the node pairs is adapted to communicate with another of the nodes of a second of the node pairs through an RF communication link, as recited in claim 4;

a method for providing a communication network between a first object and a second object, comprising:

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providing a plurality of node pairs, wherein each of the node pairs comprises at least two nodes that are connected by and communicate through a hardwire connection;

distributing the plurality of node pairs between the first object and the second object; and

establishing a communication network by linking nodes of node pairs with nodes of other node pairs, wherein the linking comprises RF communication links, as recited in claim 19.

Meier discloses a plurality of wired subnets (Fig. 6, elements 265, 287, 289), one of which containing a pair of nodes (elements 267 and 263) connected by a hardwire connection (element 265). Another of the subnets could be modified to contain at least two nodes, so that the plurality of nodes comprises a plurality of node pairs (adding node 271-2 connecting to element 271 via element 287). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement a multimode arrangement,

wherein the plurality of nodes comprises:

a plurality of node pairs (Fig. 6, element pairs 267 and 263, and 271 and 271-2);

and

wherein each of the node pairs is connected by a hardwire connection (subnets per elements 265 and 287);

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wherein at least one of the nodes of at least one of the node pairs (element 263) is adapted to communicate with another of the nodes of a second of the node pairs (element 271) through an RF communication link;

a method for providing a communication network between a first object (element 264) and a second object (element 286), comprising:

providing a plurality of node pairs (element pairs 267 and 263, and 271 and 271-2), wherein each of the node pairs comprises at least two nodes (elements 267 and 263) that are connected by and communicate through a hardwire connection (element 265);

distributing the plurality of node pairs between the first object and the second object (elements 267, 263, 271 and 271-2 configured between elements 264 and 286); and

establishing a communication network by linking nodes of node pairs with nodes of other node pairs, wherein the linking comprises RF communication links (RF link between elements 263 and 271; col. 5, lines 10-11).

The motivation for such an arrangement would have been to enable communication between two objects.

Note: The phrase "adapted to" recited in claim 4 is not positively recited claim limitations. Therefore, the limitations after the phrase are not considered the claim limitations. It is suggested that the applicant remove the phrase. However, the reference cited teaches the subject matter following the phrase.

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8. Claims 5-6, 14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Meier (US 6,046,992).

Regarding claims 5-6 and 14, Meier discloses wherein:

each node of a node pair (Fig. 6, elements 267, 263) that is proximate a node of a different node pair is adapted to communicate with the node of the different node pair (element 271) through an RF communication link (col. 5, lines 10-11), as recited in claim 5;

wherein at least one of the nodes comprises a means for receiving information from multiple nodes and transmitting information to multiple nodes (col. 5, lines 10-11), as recited in claim 7.

Meier further discloses all of the subject matter as disclosed in paragraph 7 of this office action except wherein the node pairs are distributed in an end to end fashion, as recited in claim 5, and wherein the node pairs are located at least partially in a passage, as recited in claim 6.

Examiner takes official notice that it is well known in the art arranging the nodes in an end-to-end fashion in a passage provides the shortest and simplest connection between two objects.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to arrange the nodes in an end-to-end fashion, in a passage. The motivation for such a combination would have been to achieve a simple and efficient communication between two objects.

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Note: The phrase "adapted to" recited in claim 5 is not positively recited claim limitations. Therefore, the limitations after the phrase are not considered the claim limitations. It is suggested that the applicant remove the phrase. However, the reference cited teaches the subject matter following the phrase.

Claim 18 is a substantial duplicate of claim 14 and is therefore rejected under the same reason set forth in the rejection of claim 14.

9. Claims 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Meier (US 6,046,992) in view of Kirani, et al (US Pub. 2002/0032027).

Regarding claims 7-8, Meier discloses wherein the node pairs form a communication network between the first object and the second object (col. 5, lines 5-10) and all of the subject matter as disclosed in paragraph 8 of this office action except:

wherein the first object is located inside the passage and the second object is located outside the passage, as recited in claim 7;

wherein the first object is a digital camera and the second object is a device that captures digital information, wherein the communication network passes picture information from the digital camera to the device that captures digital information, as recited in claim 8.

Kirani from the same or similar fields of endeavor discloses a digital camera (Fig. 9, element 913; para. 192, line 5) communicating through a wireless network (para. 192, lines 9-10) to a media spooler and a media exchange/vault (Fig. 9, elements 950 and 970). Furthermore examiner takes official notice that the first and second objects can

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be flexibly placed either inside or outside the passage based on service requirements and resource availability.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the network of Meier with the end devices of Kirani by placing the digital camera and the media units at either end of the communication path and transmitting output from the digital camera to the media units. The motivation for such a combination would have been to implement a monitoring system.

10. Claims 9-13, 16-17 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Meier (US 6,046,992) in view of West (US 5,574,979).

Regarding claims 9-13, Meier discloses all of the subject matter as disclosed in paragraph 8 of this office action except:

wherein:

each node of a node pair that is proximate a node of a different node pair is adapted to establish communication with the node of the different node pair by transmitting a hello signal to the node of the different node pair, as recited in claim 9;

wherein:

each node of the node pair is adapted to transmit the hello signal at predetermined a frequency and signal strength, as recited in claim 10;

wherein:

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each node of the node pair is adapted to reduce the signal strength of the hello signal after a communication link is established with the node of the different node pair until the communication link is broken; and

each node of the node pair is adapted to increase the signal strength of the hello a predefined amount after the communication is broken to reestablish the communication link, as recited in claim 11;

wherein:

each node of the node pair is adapted to establish a second communication link with another node of the different node pair if the communication link is broken, as recited in claim 12;

further comprising a means for preventing the second communication link from interfering with another communication link between two of the plurality of nodes, as recited in claim 13.

Guy from the same or similar fields of endeavor discloses:

transmitting a hello signal to communicate status information (col. 25, lines 15-16) at a predetermined frequency (col. 25, lines 17-18) and signal strength (col. 32, lines 25-31)

reestablishing a connection if the link quality degrades below an acceptable (col. 31, lines 22-24)

continuing to avoid interference (col. 33, lines 33-35).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the network of Meier with the use of hello signal to

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maintain radio connections by transmitting the hello messages based on RF conditions and parameters. The motivation for such a combination would have been to ensure the link quality.

Note: The phrase "adapted to" recited in claims 9-10 and 12 is not positively recited claim limitations. Therefore, the limitations after the phrase are not considered the claim limitations. It is suggested that the applicant remove the phrase. However, the reference cited teaches the subject matter following the phrase.

Note: The phrase "adapted to" recited in claim 11 is not positively recited claim limitations. Therefore, the limitations after the phrase are not considered the claim limitations. It is suggested that the applicant remove the phrase.

Claims 16-17 are substantial duplicates of claims 12-13 and are therefore rejected under the same reason set forth in the rejection of claims 12-13.

Claim 22 is a substantial duplicate of claim 12 and is therefore rejected under the same reason set forth in the rejection of claim 12.

11. Claims 20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Meier (US 6,046,992) in view of West (US 5,574,979).

Regarding claims 20 and 23, Meier discloses all of the subject matter as disclosed in paragraph 7 of this office action except:

wherein for each node of a node pair, the step of establishing further comprises:
transmitting a hello to a node of an adjacent node pair; and

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establishing a communication link between the node and the adjacent node if a response is received from the adjacent node, as recited in claim 20;

wherein the step of reestablishing further comprises:

transmitting a hello from the node;

receiving the hello with another node of the adjacent node pair; and

establishing the second RF communication link between the node and the other node of the adjacent node pair, as recited in claim 23.

Guy from the same or similar fields of endeavor discloses:

transmitting a hello signal (col. 25, lines 23-24) to communicate with other nodes (col. 25, lines 27-30; col. 29, lines 61-64).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the network of Meier with the use of hello signal to establish two radio connections by transmitting the hello messages and setting up RF links to other nodes. The motivation for such a combination would have been to allow communication with other nodes.

Allowable Subject Matter

12. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following documents are cited to show system pertinent to applicant's invention.

Document Number Code-Number-Kind Code	Country Code	Date MM- YYYY	Name
US-5,726,984	A	03-1998	Kubler et al.
US-5,875,179	A	02-1999	Tikalsky, Terry L.
US-6,084,867	A	07-2000	Meier, Robert C.
US-6,407,991	B1	06-2002	Meier, Robert C.
US-2002/0071395	A1	06-2002	Redi et al.
US-2004/0152420	A1	08-2004	Redi et al.
US-2005/0063360	A1	03-2005	Lowmaster, Robert Paul
US-2005/0119025	A1	06-2005	Mohindra et al.
US-2006/0135145	A1	06-2006	Redi, Jason Keith
US-7,200,130	B2	04-2007	Forstadius et al.

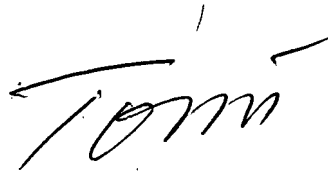
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luat Phung whose telephone number is 571-270-3126. The examiner can normally be reached on Monday to Friday, 7:30 AM to 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LP

A handwritten signature in black ink, appearing to read 'Dang T. Ton', with a stylized flourish at the end.

DANG T. TON
SUPERVISORY PATENT EXAMINER